

2000 ARMY SMALL BUSINESS INNOVATION RESEARCH PHASE II QUALITY AWARDS

Dr. Kenneth A. Bannister and James R. Myers

The 2000 Army Small Business Innovation Research (SBIR) Phase II Quality Awards Ceremony was held Aug. 22, 2000, at the Pentagon. Paul J. Hoeper, then Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASAALT), hosted the ceremony. Hoeper was assisted with the award presentations by Dr. A. Michael Andrews II, Deputy Assistant Secretary of the Army for Research and Technology; Jon Baron, former DOD Program Manager, SBIR/Small Business Technology Transfer (STTR), and now the new Executive Director of the Presidential Commission on Defense and Commercial Offsets; and Dr. Robert S. Rohde, Deputy Director for Laboratory Management, Office of the ASAALT.

Established in 1994, the Quality Awards Program recognizes SBIR Phase II (research and development) efforts that exemplify the SBIR goal of bringing innovative technologies and products to the marketplace. All Army SBIR Phase II companies whose projects conclude in a given fiscal year are eligible to compete for that year's quality awards. Award winners are selected based on the following three criteria: originality and innovation of research; relevance of the research to the Army and its mission; and commercialization potential of the research, reflecting the primary goal of

bringing technology and products to the marketplace.

Quality awards are presented to each winning SBIR company as well as its sponsoring Army organization's technical director, technical monitor, and SBIR coordinator.

2000 Quality Award Winners

Recipients of the 2000 Army SBIR Phase II Quality Awards and their achievements are as follows:

Farance Inc., New York, NY. The Student-Centered Learning System, developed by Farance Inc., provides a major paradigm shift in the ownership, maintenance, and security of student records within the education industry. This component-based architecture satisfies the user's privacy, security, administration, and data modeling needs. The system directly supports the Army's Personal Learning Systems Program for student-centered learning and contributes to the Army's Distance Learning Program.

Accepting the award for Farance Inc. was the company's President, Frank Farance. Also receiving awards for the Student-Centered Learning System were Dr. Louis C. Marquet, Director of the U.S. Army Communications-Electronics Research, Development and Engineering Center; James R. Schoening, SBIR

Technical Monitor; and Suzanne J. Weeks and Joyce A. Crisci, SBIR Coordinators.

Flow Inc., Portland, OR. Malaria is one of the world's most prevalent diseases and was the leading cause of medical disability among U.S. military personnel in Vietnam and Somalia. Developed by Flow Inc., the OptiMAL assay is a field-ready test that permits the diagnosis of all four forms of human malaria and aids in evaluating multiple drug-resistant malaria so that effective therapy can be instituted. This diagnostic test also has great potential for civilian travelers, international relief workers, Peace Corps volunteers, and many other nonmilitary personnel working in malaria-endemic areas around the world.

The quality award was presented to Dr. Michael Makler, CEO of Flow Inc. Also receiving awards for the OptiMAL assay were COL Martin H. Crumrine, Director of the Walter Reed Army Institute of Research; COL Wilbur K. Milhous, SBIR Technical Monitor; and Herman F. Willis, SBIR Coordinator.

Production Products Mfg. & Sales Inc., St. Louis, MO. Production Products Mfg. & Sales Inc. developed the capability to measure strain-rate information on the inside of lightweight-composite vehicular armor during a ballistic event. This process successfully integrates fiber-optic recording, high-speed demodulation, ballistic testing, and composite materials to bring scientific advancements to practical engineering capabilities. Because of this development, the Army will be able to design armor that will ensure the survivability of future soldiers and their equipment.

Accepting the award for Production Products was Director of Research and Development Kelli Corona-Bittick. Also receiving awards for this project were Dr. Robert W. Whalin, Director of the U.S. Army Research Laboratory; Dr. Bruce K. Fink, SBIR Technical Monitor; and Dean Hudson, SBIR Coordinator.

ThermoAnalytics Inc., Calumet, MI. The Army's next-generation

weapon systems and tactical vehicles must be smaller, lighter, and more maneuverable, yet still maintain a high degree of survivability. Using the latest software engineering practices and techniques, ThermoAnalytics Inc. developed a computer-aided engineering software tool that optimizes a vehicle's performance during the initial design phase. The program can be run on any computer, and its cross-platform functionality and object-oriented programming maximizes integration with other design tools.

Accepting the award for ThermoAnalytics Inc. was Keith Johnson, Program Manager, and Dr. Allen Curran, Principal Investigator. Also receiving awards for this project were Jerry L. Chapin, Director of the U.S. Army Tank Automotive Research, Development and Engineering Center; Teresa Gonda, SBIR Technical Monitor; and Alexander Sandel, SBIR Coordinator.

Cree Inc., Durham, NC. Current and future DOD communication systems will benefit from the development and availability of high-power, high-efficiency, solid-state amplifiers. The high-power GaN/AlGaIn High Electron Mobility Transistor (HEMT), developed by Cree Inc., has successfully produced record power densities and X-band efficiency. This technology also has wide potential in the commercial sector and will be strategic to the competitiveness of large business systems in radar, cellular base stations, and microwave satellite communications.

Accepting the award for Cree Inc. was the Director of Advanced Devices John Palmour. Also receiving awards for the HEMT project were Dr. Robert W. Whalin, Director of the U.S. Army Research Laboratory; Dr. Kenneth A. Jones, SBIR Technical Monitor; and Dean Hudson, SBIR Coordinator.

DCS Corp., Alexandria, VA. Vehicular accidents occur during night operations because of perceptual limitations when using image intensifier (I2) devices. The Night Driving Training Aid (NDTA), developed by DCS Corp., provides instruction in the use of night vision goggles (NVGs) for driving. The NDTA addresses basic I2 con-

cepts, NVG capabilities and limitations, driving techniques, and driving hazards. In addition, the training aid provides a variety of scenes and scenarios in an interactive setting and is a viable means of conducting low-cost training at the unit level where time and money are limited.

Accepting the award for DCS Corp. was Carl Dubac, Chairman of the Board, and Dr. John Ruffner, Principal Investigator. Also receiving awards for NDTA were Dr. Michael R. Macedonia, Chief Scientist of the U.S. Army Simulation, Training and Instrumentation Command, and Joseph M. Pellegrino, SBIR Technical Monitor and SBIR Coordinator.

Medical Analysis Systems Inc., Camarillo, CA. U.S. military personnel have significant health concerns about being deployed to malarious regions of the world. Medical Analysis Systems Inc. has developed a rapid assay for detecting malaria parasites in infected mosquitoes. The VecTest can be employed in the field to continuously monitor for the most serious species of malaria. This information is critical to preventive medicine teams as they establish and develop programs for infectious disease control in military operations.

Accepting the award for Medical Analysis Systems was Dr. Kirti Davé, Principal Investigator. Also receiving awards for the VecTest were COL Martin H. Crumrine, Director of the Walter Reed Army Institute of Research; MAJ Jeffrey R. Ryan, SBIR Technical Monitor; and Herman F. Willis, SBIR Coordinator.

Skiametrics Inc., Winchester, MA. The Universal Computed Tomography System (UCT), developed by Skiametrics Inc., is a volume inspection system for rapid, 100-percent X-ray imaging of industrial and military components. UCT is designed to be flexible and easily accommodate objects up to 40 inches long by 9 inches in diameter for total inspection. Selectable inspection sequences provide a range of 100 percent computed tomography imaging within a few minutes at relatively coarse resolution and an hour at the highest spatial resolution and contrast.

Using the UCT system, the Army can determine the serviceability of individual munitions quickly and with a high degree of accuracy.

Accepting the award for Skiametrics Inc. was the company's President Dr. Paul Burstein. Also receiving awards for the UCT project were Michael Fisette, Technical Director of the U.S. Army's Armament Research, Development and Engineering Center; Dr. Paul D. Willson, SBIR Technical Monitor; and John Saarmann and Carol L'Hommedieu, SBIR Coordinators.

Conclusion

The small business community plays a vital role in the readiness and effectiveness of our Armed Forces. Its creativity and innovative spirit will enable tomorrow's warfighters to successfully overcome the challenges they encounter on the battlefield. The SBIR Program fosters this innovative thinking, which in turn benefits the Army, the private sector, and our National economy.

Note: An article on the SBIR and STTR Programs begins on Page 33 of this magazine.

DR. KENNETH A. BANNISTER is the Army SBIR Program Manager at the Army Research Office-Washington, DC. He is active in the American Society of Mechanical Engineers and is a member of Tau Beta Pi, Phi Kappa Phi, and the American Association for the Advancement of Science.

JAMES R. MYERS is an Analyst with BRTRC Inc. and supports the Army Research Office in executing the SBIR, Analytical Control Team II, and STTR Programs. He holds a B.S. degree in health resource management from George Mason University. He previously worked at the former Operational Test and Evaluation Command in Alexandria, VA.
